

**DRAFT**  
**FY 2010 JOINT END-OF-YEAR REPORT OF**  
**THE STATE OF UTAH'S HAZARDOUS WASTE PROGRAM**

by  
The U.S. Environmental Protection Agency - Region 8  
Solid and Hazardous Waste Program  
and  
The Utah Division of Solid and Hazardous Waste

## **INTRODUCTION**

This report presents the results of a joint end-of-year (EOY) review of the Hazardous Waste Program (HWP or Program) as administered by the Utah Department of Environmental Quality (UDEQ). Utah is an authorized state under the Resource Conservation and Recovery Act (RCRA), and the Utah Division of Solid and Hazardous Waste (the Division) within UDEQ is the principal implementer of the program. EPA Region 8 conducts oversight of the program and provides program and technical assistance to the state.

UDEQ and the Region 8 office of the Environmental Protection Agency (EPA) entered into an annual agreement, the Utah Performance Partnership Agreement (PPA), for administration and implementation of its authorized hazardous waste program during FY 2010 (October 1, 2009 - September 30, 2010). The PPA includes the annual grant work plan for the hazardous waste program of the Division.

This report has been prepared, as provided in 40 CFR 35.150, as a means to evaluate the State's efforts to fulfill that work plan. The report also serves as the EPA's overall review of the authorized program in Utah, and includes an analysis of the program's progress toward addressing long-term state and national RCRA program goals and objectives.

This report also contains some information on Utah's waste minimization activities relating to the Resource Conservation Challenge (RCC). Many of these activities relate to non-hazardous solid waste, and are both voluntary in nature and not part of the state's authorized hazardous waste program. They are discussed here to provide a more complete picture of the state's waste programs. Please note that compliance monitoring and enforcement (CM&E) information has been entered into RCRAInfo throughout FY 2010. This report and its findings are based on the State's data in the RCRAInfo database and other information provided by the State.

This review is based on the Program Standards and Oversight Procedures (PSOP). Under these standards, a state Hazardous Waste Program is evaluated for 19 program criteria organized under four key program areas: Program Management, Pollution Prevention and Hazardous Waste Minimization; Safe Waste Management; and Corrective Action. The Compliance/Enforcement self assessment for FY10 is also included in this report. A table summarizing EPA's findings for the program's performance, as measured against the program standards for the 19 program criteria is included as an attachment.

## SUMMARY OF FINDINGS

Utah's FY 2010 PPA included commitments in the areas of Waste Minimization, Permits, Closure, Corrective Action, and Training and Technical Assistance.

During FY 2010, the Division met or exceeded the standards for all of the 19 program criteria that were applicable (see Attachment at end of this report). The Division continued its commitment to a high level of activity for Pollution Prevention and Hazardous Waste Minimization, particularly with its programs for recycling waste tires and used oil. In the areas of Safe Waste Management and Corrective Action, the Division continued to make significant progress toward national program goals.

## PROGRAM MANAGEMENT

1. ***Adoption of Hazardous Waste Regulations (Criterion 1.1 of the Program Standards and Oversight Procedures (PSOP))***

Utah has adopted all required rules under the RCRA program.

During FY 2010, the Division submitted the Addendum 14 application to EPA on 6/15/10.

*The state met the standards for this criterion.*

2. ***Authorization (PSOP Criterion 1.2)***

According to data in StATS, as of March 31, 2010, Utah is authorized for 96% of the required rules under RCRA. Once addendum 13 and 14 are approved by EPA, Utah will be current on all required authorized rules.

*The state met the standards for this criterion.*

3. ***Memorandum of Agreement (PSOP Criterion 1.3)***

The MOA signed in February 2008 is still valid.

*The state met the standards for this criterion.*

4. ***Resource Levels and Skill Mix (PSOP Criterion 1.4)***

For the 2010 state fiscal year (July 1, 2009 to June 30, 2010) the Division expended \$6,116,000 for its solid and hazardous waste programs. The majority of the funding for the hazardous waste program in Utah comes from state funding sources. For state FY 2010, revenues generated by state hazardous waste disposal fees comprised about 18% of the Division program budget. Additionally, both hazardous and non-hazardous waste disposal fees account for about 44% of the FY 2010 Division budget. Program funding from EPA remained unchanged for FY 2010 at \$747,200, representing 12% of the total

program budget. The appropriated funds and the FTEs were spread across the primary areas of the Solid and Hazardous Waste Program as follows:

| <b>Program Area</b>     | <b>\$</b>   | <b>% of budget</b> | <b>FTE</b> |
|-------------------------|-------------|--------------------|------------|
| P2/Compliance Asst.     | \$692,375   | 11%                | 6          |
| Safe Waste Mgmt         | \$1,384,755 | 23%                | 12         |
| Corrective Action       | \$1,153,960 | 19%                | 10         |
| Inspection, Enforcement | \$1,846,336 | 30%                | 16         |
| Administration          | \$1,038,574 | 17%                | 9          |
| Total                   | \$6,116,000 | 100%               | 53         |

The Division operates a mature program with experienced staff. The staff includes engineers (civil, chemical, environmental, mechanical), environmental scientists (geologists, chemists, biologists, geo-hydrologists, hydrologists), GIS Specialist, and PhDs, as well as support staff.

Professional staff has a mix of advanced education with bachelors, masters, and doctoral degrees. Five of the engineers are registered professional engineers and thirty of the geologists are registered professional geologists. The Division lost two branch managers and one scientist in FY 2010.

*The state met the standards for this criterion.*

5. ***State Training Program (PSOP Criterion 1.5)***

In recognition of the high level of experience the Division staff has in the hazardous waste program, each year staff members continue to receive a mix of professional and leadership development training opportunities. During FY 2010, the following list of professional courses and conferences is representative, but not all inclusive, of those attended by the Division staff:

- RCC Workshop sponsored by EPA
- RCRA Info National Users Conference
- ITRC Meetings
- ASTSWMO Meetings
- E-Scrap 2010Colorado Association for Recycling and EPA Resources

Additionally, the Division continues to provide leadership development training to its staff. This program exists in recognition of the need to prepare future leaders in the various environmental programs. Utah DEQ has developed a leadership development program to meet that need. The following types of courses are part of that ongoing effort:

**DEQ 101** is a seminar that provides a brief overview of the roles and responsibilities of each office and division within the department.

**Total Quality Advantage** – A summary course that introduces participants to quality improvement concepts and provides a rudimentary understanding of the Five Pillars of Quality in an organization.

**Getting Work Done With Others** – This course focuses on interpersonal communication, presentation, conflict management, problem solving, team building skills, and cultural and diversity awareness.

**Adapting to Change** – This course focuses on personal learning styles, visioning, assessing potential, implementing change, using creativity, being resilient, handling stress, and empowering others.

**Excellence in Supervision** – This course is designed to hone people skills, including resource management, leadership, coaching, managing for diversity, and conflict resolution necessary to be an effective leader.

**High Conflict Conversations** – This course helps participants develop interpersonal communication skills that will help them deal with conflict and difficult communication situations in a constructive manner.

**Leadership Development Course** – Participants meet monthly to discuss a variety of topics that are relevant to DEQ. The curriculum is designed to apply many of the competencies related to activities within DEQ. Classes consist of a selected representative from EDO and each of the divisions in DEQ and are mentored by a DEQ senior manager. Participants also complete leadership/employee development classes, independent studies, prepare a brown bag presentation, participate in a rotation through DEQ divisions and offices, and complete a group project. Completion of the program takes two years. New classes begin in January of every year. The fourth class of this program began in January 2007.

*The state met the standards for this criterion.*

6. ***Information Management (PSOP Criterion 1.6)***

The Division has entered data for the Safe Waste Management, Corrective Action, and Compliance/Enforcement elements of the program in RCRAInfo. Some information was entered late because of change in staff and management assignments.

*The State meets the standards for this criterion.*

7. ***Records Management (PSOP Criterion 1.7)***

The Division has used an electronic documents management system for several years. This system has shown, and continues to demonstrate, an increase in the efficiency of

handling both incoming and outgoing documents while reducing the amount of paper used. Incoming documents are scanned, creating an electronic version which is then distributed via the Division's email system. Similarly, outgoing documents are created electronically and distributed among the appropriate technical, management, and/or legal staff for review and approval prior to printing and signing.

The Division continued to provide access to key program documents for the appropriate EPA Region 8 staff, particularly compliance and enforcement documents. Specifically, a password-protected area on the Division web site exists where documents are posted for EPA's exclusive review and use. This allows EPA staff immediate access to these documents at anytime, rather than wait for delivery by traditional mail or e-mail.

*The state met the standards for this criterion.*

## **THE RESOURCE CONSERVATION CHALLENGE, WASTE MINIMIZATION, POLLUTION PREVENTION AND COMPLIANCE ASSISTANCE**

The Division addresses waste minimization and pollution prevention primarily through a non-regulatory approach with an emphasis on compliance assistance. To bring these kinds of efforts into sharper focus, EPA established the Resource Conservation Challenge (RCC) in 2002 to serve as a way in which waste program activities could emphasize conserving natural resources and energy—an overall objective of the federal law which governs federal and, in a general sense, state waste programs. The RCC currently has four primary national focus areas in which voluntary activities are being planned and reported:

- Municipal Solid Waste Recycling
- Industrial Materials Recycling
- Priority and Toxic Chemicals Reductions
- Electronics Recycling

During FY 2010, the Division participated in all four of the national focus areas and established specific priorities to target areas where significant accomplishments can be achieved. Significant resources were dedicated to the waste tire and used oil-recycling programs. Additionally, in FY 2010, the Division participated in meetings and activities associated with the development of recommendations for the Utah Legislature's consideration of an electronics recycling program. These three program areas are highlighted below within the Industrial Materials Recycling, Priority and Toxic Chemicals, and Electronics Recycling focus area sections, respectively.

### ***35% MSW Recycling***

Division employees worked with the Weber State University's Environmental Club to organize and present the Northern Utah Recycling Summit as part of the Western Regional Environmental Initiative Conference hosted by Weber State University. This day-long event was held March 12, 2010 had 11 presentations on various recycling and waste minimization issues, and it was attended by 80 people involved in waste management and recycling.

### ***Electronics Recycling***

Division employees have worked with Representative Rebecca Edwards of the Utah House of Representatives to draft electronic scrap recycling legislation based on the extended producer responsibility model. The Division has provided assistance to Rep. Edwards with stakeholder meetings, review, drafting, and modification of the proposed legislation. The bill will be introduced during the 2011 legislative session.

The Division assisted in funding one-day electronic collection events in cooperation with Salt Lake, and Tooele (two events in Salt Lake and one in Tooele) Counties. Division funds were given to the Recycling Coalition of Utah to be distributed as grants.

Division employees also continued to participate in EPA Region 8's Western Region Electronics Stewardship Council (WRESC) conference calls. This Council was formed in October 2007 as a forum for individuals and organizations to promote responsible electronics reuse and recycling within EPA Region 8 and surrounding states.

Division employees have participated in EPA Region 8's RCC conference calls and are involved with the subcommittee to develop a draft measurement methodology for Region 8 states.

### ***Industrial Materials Recycling***

A continuing priority of the RCC is the recycling of secondary industrial materials into beneficial uses. Nationally, the effort is focused on three principal materials: coal combustion products, foundry sands, and construction and demolition materials. In Utah, the Division has focused its efforts on the recycling of waste tires.

In Utah, over 1.9 million waste tires were generated during FY 2010. Through the combined efforts of the Division, the waste tire recycling industry, and local health departments, there currently are recycling markets for all these tires and all major waste tire piles in the state have been cleaned up. This has been the result of a successful partnership in establishing a network of waste tire transporters, processors, and end users.

More specifically, the Division's role in the management of waste tires in Utah consists primarily of two components. First, the agency serves as a regulatory/enforcement agency. The Division monitors waste tire transporters and recyclers to ensure that all are operating in compliance with applicable statutes and regulations. Second, the Division oversees the activities to clean up and remove waste tire piles—those considered abandoned as well as those created at municipal landfills. The waste tire recycling program is funded by a \$1.00 per tire recycling fee collected from new tire sales, as established by the Utah Legislature.

From the inception of the program through FY 2010, the Utah waste tire program has removed all abandoned tire piles and is removing, on a periodic basis, waste tire piles created at landfills as the waste tires are separated from the other waste and new piles when they are located. One abandoned tire pile was cleaned up.

A successful waste tire recycling program exists when a viable recycling industry is readily available. The Utah program has successfully accomplished this throughout the years of program operation. Three waste tire recyclers are currently operating in Utah:

- One cement kiln (use waste tires as fuel).
- One crumb rubber manufacturer.
- One municipal landfill (uses chipped tires for daily cover material).

During FY 2010, the Utah waste tire program has continued to achieve success. The following are the statistics for the waste tire recycling and cleanup programs during the past fiscal year.

***Waste Tire Recycling in Utah:***

1. Estimated new tires sold: 2,848,000
2. Estimated tires recycled: 1,972,000 (based on a general conversion factor of 60 tires/ton)
3. Waste Tire Recycling: 32,873 tons of tires recycled
  - 16,446 tons used in crumb,
  - 16,107 tons used in recycling, and
  - 320 tons used in beneficial use.
4. Due to low fund balance, no tire pile cleanups were done in FY09

Figure 1

**Utah Waste Tires Recycled**

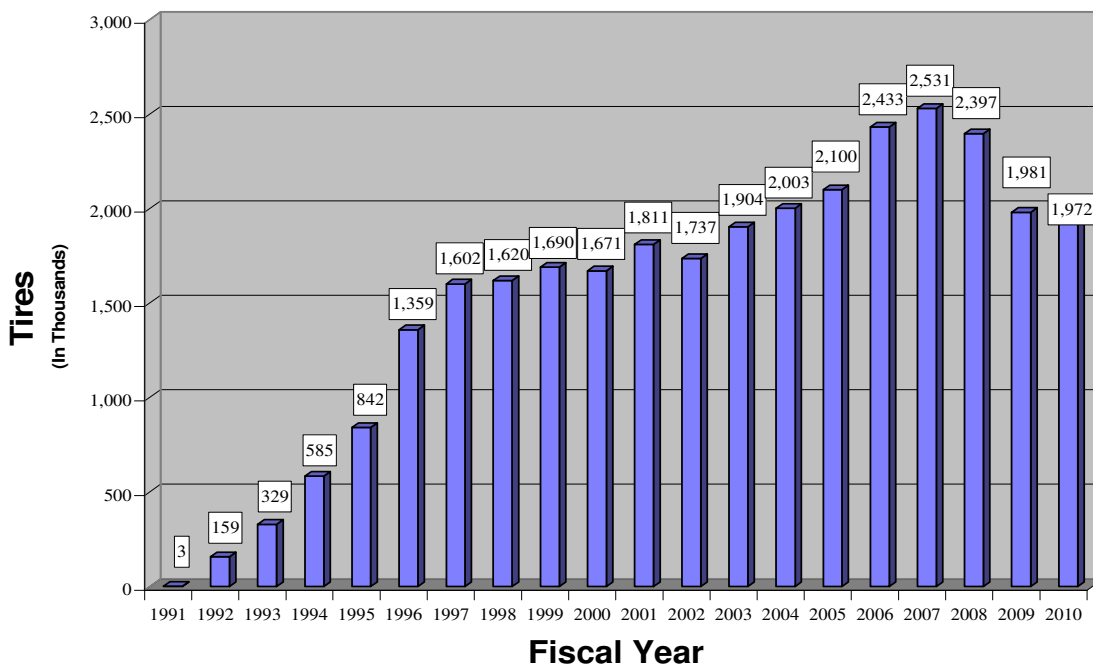
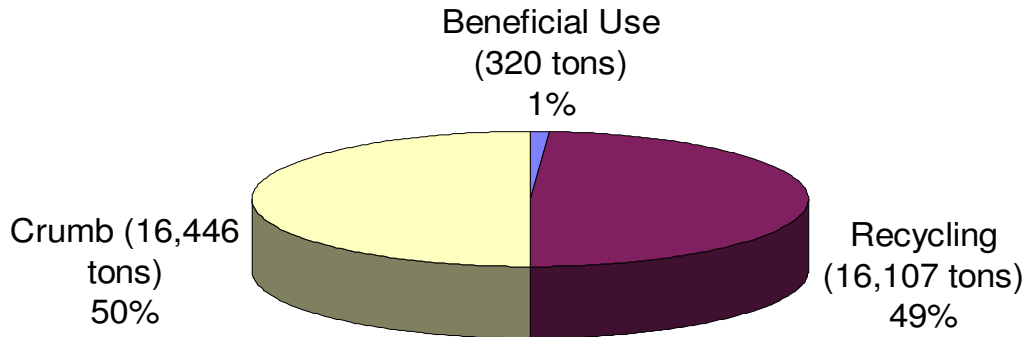


Figure 2

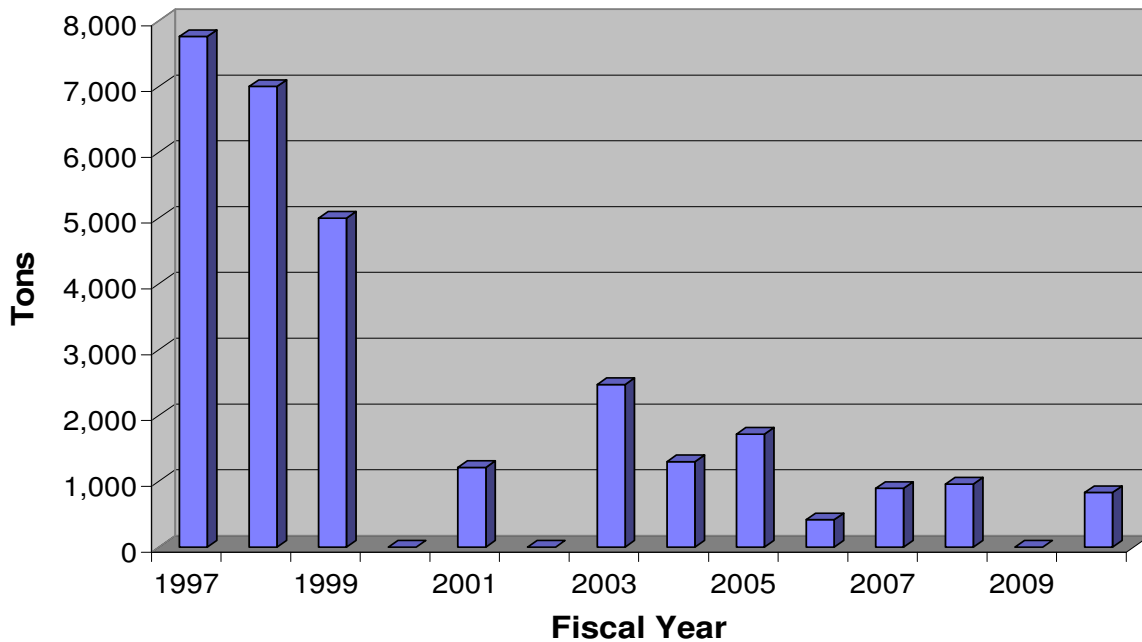
## FY10 Waste Tire Recycling By Category



### *Waste Tire Pile Cleanups:*

Figure 3

## Waste Tire Pile Cleanups



In March Ralph Bohn, Solid Waste Program Manager, attended the RCC National Training Workshop sponsored by EPA and held in EPA headquarters.



## Priority and Toxic Chemicals

During FY 2010, the Division worked on a number of activities designed to minimize the generation or improper disposal of hazardous wastes.

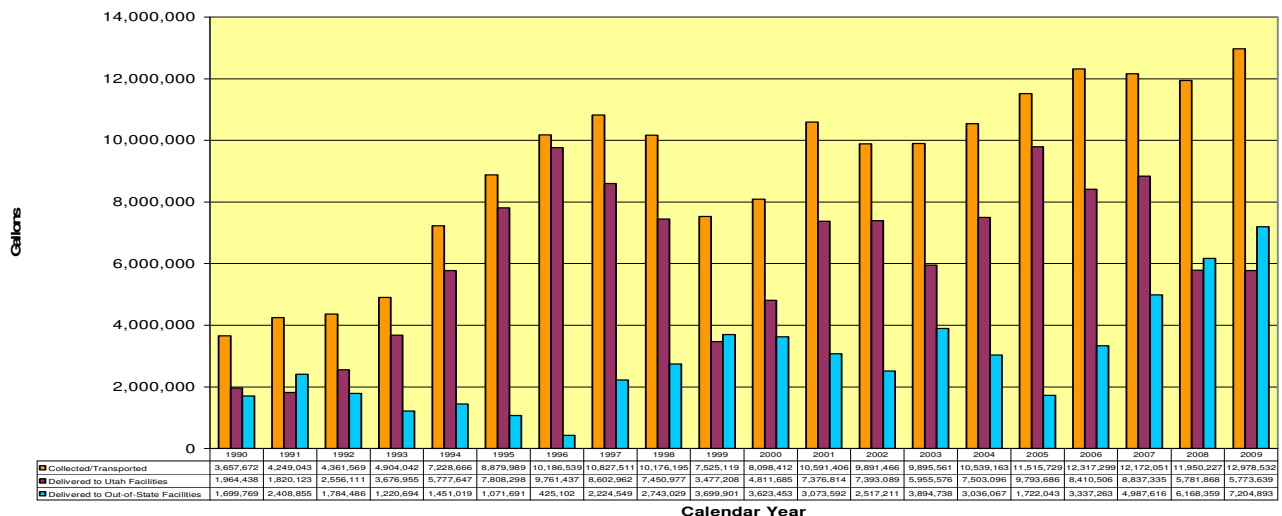
- The Division continued to work with auto salvagers to educate them on the removal of mercury switches for automobiles. As of October 13, 2010, the End of Life Vehicle Solutions Corporation (ELVS) had 127 participants in the Mercury Switch Recovery Program and had collected 27,903 switches, which is equal to 61.39 pounds of mercury.
- Both UDEQ and the Division staff continued to utilize and distribute a Best Management Practices poster for auto recyclers and repair shops as part of ongoing educational outreach efforts.
- The Division provided technical assistance to businesses and the public through fact sheets, newsletters, and electronic media. The Division Web Site and P2 Library were maintained with information regarding waste minimization, source reduction and recycling.

## Used Oil Recycling Program

One of Utah's priorities for addressing recyclable materials is the Used Oil Program. UDEQ established this program in 1993, and has had significant success in the collection and recycling of used oil in an environmentally responsible manner. There are two principal elements of the Utah Used Oil Program in Utah: Oil from businesses and the Do-It-Yourself (DIY) program.

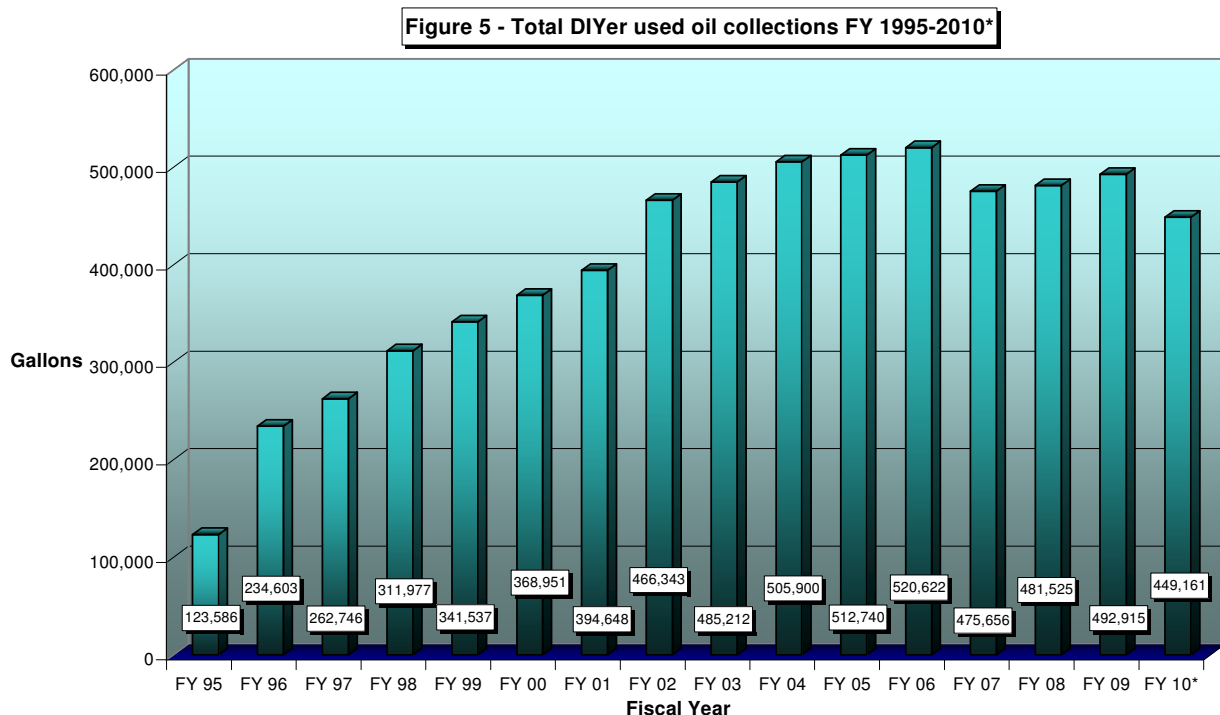
Figure 4 shows the total amount of used oil recycled from both elements of the program from 1990 through 2009. The data indicate that the amount of used oil recycled in the subject period ranged from a low of about 7,525,000 to the recent program high in 2009 of almost 13,000,000 gallons.

Figure 4 - Total Used Oil Collected 1990-2009



A closer look at the DIYer element of the program is presented in Figure 5. The data show steady growth in the amount of DIYer used oil collected for recycling over a 14-year period, although there has been a slight decrease in the collection amounts for the past four fiscal years. Based on log sheets provided by registered DIYer collection centers to date, approximately 449,161 gallons of DIYer has been recycled in FY2010. As usual, however, the Division is continuing to receive log sheets for fiscal year 2010 so the total number of gallons collected is under reported at the time of this report. If the trend from the past three years continues, the slight decrease in collections can be explained by the national decline in DIYer used oil generation and collection due to:

- extended motor oil drain intervals approaching 7,000 to 10,000 miles, versus the old recommended 3,000 miles per oil change;
- advances in motor oil formulations and additives extending the life of motor oils;
- the ever increasing number of conveniently located Do-It-For-Me oil change facilities expanding into rural areas; and
- the recent down turn in the economy.



The Used Oil Program continues to develop partnerships with cities and counties throughout the state to coordinate public education activities as a result of the storm water run-off permit regulations. One of the requirements of the storm water permits is to develop and distribute information to the public to educate them about chemicals and

products, including used oil that should not be discharged into storm drains. The Division continues to work with these local agencies to incorporate used oil recycling educational material and messages promoting proper used oil recycling, including locations where to take used oil generated by do-it-yourselfers (DIYers) in order to have it collected and recycled at no cost.

Utah has also invested much into education and outreach for the used oil program as described in the following highlights:

1. All charts depicting DIYer used oil (state-wide totals and county totals) and total used oil (DIYer and business) collected in the state since the program began in 1993 under the Division, continue to be updated on the Web to reflect current information. The latest edition of the Used Oil Drip, the used oil program newsletter, is also available on the Web. Annual report information for calendar year 2009 provided by all permitted used oil facilities has been summarized and is available on the Web. The Web site lists each permitted facility in Utah and how much used oil each facility processed, burned and/or transported.
2. Used oil recycling information and promotional materials provided by the Division continue to be distributed by numerous local health departments throughout the state. The promotional material is distributed at many local community events such as county fairs, demolition derbies, natural resources fairs, and various Earth Day events, and especially at sporting events at college campuses. The Used Oil Drip, the Division's used oil recycling newsletter, is distributed to city and county officials, collection centers, local health department officials, state legislators, and other state and federal agencies. The newsletter is also requested by and mailed to environmental program staff from other states that are considering establishing or have an existing DIYer used oil recycling program.
3. Boy Scouts of America Eagle Scout projects are ongoing. A popular project is to coordinate the labeling of garbage containers with stickers related to used-oil recycling as a reminder to keep used oil from being disposed of in private dumpsters.

*The State meets the standards for this criterion.*

## **SAFE WASTE MANAGEMENT**

Utah has a significant number of facilities that manage hazardous waste, and the FY 2010 PPA supports the State's and EPA's goal of safe management of hazardous waste through the use of approved controls (closure plans, permits, operating permits, and other similar type of approved controls). The PPA includes performance measures for progress towards closure of facilities, controls for facilities closing with waste in place, and initial and renewed operating permits for facilities that manage hazardous wastes.

### ***Universe of Treatment, Storage and Disposal Facilities (TSDFs)***

As indicated by the data that the Division maintains in the RCRAInfo database and based on the legal and operating status of the hazardous waste management units (HWMUs), Utah has 59 current and past RCRA Treatment Storage and Disposal Facilities (TSDFs). As noted in Table 1, by FY 2010, many of the 59 TSDFs either have been referred to the CERCLA program for remediation or are no longer active because they have closed all units.

**Table 1 - Summary of TSDFs for Utah<sup>1</sup>**

|                                                                           |    |
|---------------------------------------------------------------------------|----|
| Historical <sup>2</sup> Utah TSDF Universe                                | 59 |
| TSDFs with all HWMUs referred to CERCLA                                   | 7  |
| TSDFs with RCRA as lead authority                                         | 52 |
| TSDFs with all HWMUs clean closed and terminated permit or interim status | 37 |
| TSDFs with active <sup>3</sup> HWMUs                                      | 15 |
| TSDFs established as Baseline Universe under GPRA                         | 26 |

1 - Data based on EPA Region 8 Universe Report (UND02) dated February 5, 2008.

2 - The Historical TSDF Universe includes all TSDFs that manage or managed hazardous waste in regulated hwmus, either currently or in the past.

3 - Active hwmus are those regulated units that are still managing hazardous wastes or have not yet completed the closure process to the point where the Operating or Post-Closure Permit, or Interim Status has been terminated.

#### **1. *Progress toward Closure Plan Approvals and Closure Verifications (PSOP Criterion 3.1)***

As presented in Table 2, there are 49 RCRA-lead TSDFs with closed or closing HWMUs, including 17 with closing land disposal units (LDUs), 42 with closing treatment and storage units (TSUs), and three with closing combustion units (CUs). There are 199 total units on the closure track.

As detailed in Table 2 and in the FY 2010 Commitments Table in the Attachments section, the Division completed one closure plan approval (CL360) for CUs. The Division completed two closure plan verifications (CL380) for TSUs in FY 2010.

As a result of these actions, the Division continued to make significant progress in addressing hazardous waste units on the closure track. Closure plans have been approved for 191 out of 203 (94%) of all closing units, and closure has been verified for 88% (178 of 203) of all closing units.

**Table 2 - Status of Closing Units in Utah<sup>1</sup>**

| Status, Activity                                           | LDUs | TSUs | CUs | Total <sup>2</sup> |
|------------------------------------------------------------|------|------|-----|--------------------|
| TSDFs on Closure Track with appropriate units <sup>1</sup> | 17   | 42   | 3   | 49                 |
| Units on Closure Track                                     | 55   | 141  | 6   | 202                |
| Units with Closure Plan Approved at start of FY 2010       | 53   | 132  | 5   | 191                |
| Closure Plans Approved in FY 2010                          | 0    | 1    | 0   | 1                  |

|                                                     |    |     |   |     |
|-----------------------------------------------------|----|-----|---|-----|
| Units with Closure Plan Approved at end of FY 2010  | 53 | 133 | 5 | 191 |
| Units with Closure Verified at the start of FY 2010 | 52 | 119 | 3 | 174 |
| Unit closures verified in FY 2010                   | 0  | 4   | 0 | 4   |
| Units with Closure Verified at end of FY 2010       | 52 | 123 | 3 | 178 |

1 – Includes only those managed by RCRA, not those referred to CERCLA.

2 – Total number of TSDFs differs from the sum of the three facility columns because some facilities have more than one type of unit.

The following table summarizes the closure activities (CL360, CL370, and CL380) in FY 2010:

**Table 3 – FY 2010 Closure Activities in Utah**

| Facility                     | Activity                                                                                                          | Date     |
|------------------------------|-------------------------------------------------------------------------------------------------------------------|----------|
| ATK Launch Systems – Bacchus | Closure Verification (CL380) Septic System #3                                                                     | 3/2/10   |
| Dugway Proving Ground        | Closure Plan Approval (CL360) – Igloo G<br>Closure Verification (CL380) – Igloo G                                 | 6/15/10  |
| Ensign-Bickford Company      | Closure Verification (CL380) – Inactive Thermal Treatment Area (SWMU 15) and the RDX Accumulation Tanks (SWMU 42) | 04/21/10 |

*The State meets the standards for this criterion.*

2. ***Quality of Closure Plans and Verifications (PSOP Criterion 3.2)***

*The State meets the standards for this criterion.*

3. ***Progress toward Controls for Post-Closure and Operating Facilities (PSOP Criterion 3.3)***

In FY 2010, there are 27 RCRA-lead TSDFs that require controls for management of hazardous wastes in either post-closure (PC) LDUs or operating HWMUs: 13 require PC care, 19 have operating units, and six (6) have both. Starting in 2005, these 27 facilities have been consolidated into a baseline universe for approved controls to track progress toward national goals.

In FY 2008, the ATK Launch Systems – Bacchus was split into two separate facilities, Plant 1 owned by ATK and the Naval Industrial Reserve Ordnance Plant (NIROP) which is owned by the Navy. The number of baseline universe facilities increased to a total of 27 RCRA-lead TSDFs that require controls.

As presented in Figure 6 below, at the end of FY 2010, Utah had placed the appropriate post-closure or operating controls for all units at 26 of the 27 facilities in the baseline universe. The national goal for FY 2010 was 95%. The Division completed Approved Controls (OP200) for ATK Launch Systems- Promontory and Dugway HWMU 158. HWMU 9 is the only unit left without an approved control in place; however, most of the

waste has been removed and the unit should be included in the post-closure permit by the end of FY11.

**Figure**

**6**

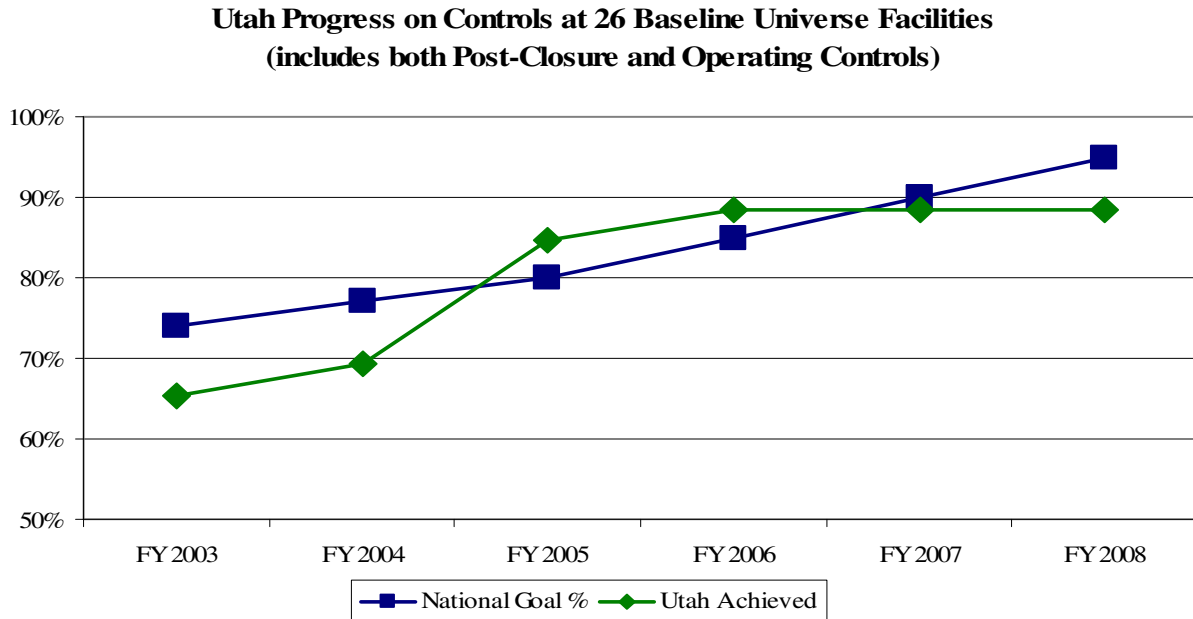


Table 4 lists the achievements.

**Table 4 – FY 2010 Safe Waste Management Activities in Utah**

| Facility                             | Activity                                                                                                                        | Date     |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------|
| <b>ATK Launch Systems Promontory</b> | Modification to existing Storage Permit – adds module for Two Subpart X units – M-136 Burning Grounds and M-225 Burning Grounds | 09/30/10 |
| <b>Dugway</b>                        | HWMU 158 was included in the post-closure permit                                                                                | 04/02/10 |

Table 5 indicates the status of the Baseline Facilities and their units as of the end of FY 2010.

| <b>Table 5 – Permit Status for Utah TSDFs Needing Controls</b> |               |               |               |              |               |                        |
|----------------------------------------------------------------|---------------|---------------|---------------|--------------|---------------|------------------------|
| <b>TSDF and Unit Categories</b>                                | <b>PC LDU</b> | <b>OP LDU</b> | <b>OP TSU</b> | <b>OP CU</b> | <b>OP TOT</b> | <b>TOT<sup>1</sup></b> |
| Facility Level measures for Baseline Universe                  |               |               |               |              |               |                        |
| TSDFs on 2005 Consolidated Baseline Universe                   | 17            | 3             | 17            | 3            |               | 27                     |
| TSDFs with all units controlled at start of 2010               | 10            | 3             | 16            | 3            |               | 25                     |
| TSDFs with all units controlled in 2010                        | 0             | 0             | 1             | 0            |               | 1                      |
| TSDFs with all units controlled at end of 2010                 | 10            | 3             | 16            | 3            |               | 26                     |

|                                                  |     |      |      |      |      |     |
|--------------------------------------------------|-----|------|------|------|------|-----|
| Facility Level Percentage                        | 65% | 100% | 94%  | 100% |      | 96% |
| <b>Unit Level measures for Baseline Universe</b> |     |      |      |      |      |     |
| Units in 2005 Consolidated Baseline Universe     | 40  | 4    | 139  | 6    | 139  | 183 |
| Units with controls in place at start of 2010    | 39  | 4    | 137  | 6    | 137  | 180 |
| Units with controls in place during 2010         | 0   | 0    | 2    | 0    | 2    | 2   |
| Units with controls in place at end of 2010      | 39  | 4    | 139  | 6    | 139  | 182 |
| Unit Level Percentage                            | 98% | 100% | 100% | 100% | 100% | 99% |

1 – Total number differs from the sum of the three facility columns because some facilities have more than one type of unit.

The Division also received 98 permit modification requests (including temporary authorizations) during FY 2010 and completed 69 modifications as follows:

1. Class I – 14
2. Class Ia – 37
3. Class II – 9
4. Class III – 2
5. Temporary Authorizations - 7

During FY 2010, the Division issued 34 Emergency Permits.

The agency also notes that the Division issued permits to a vast majority (182 out of 183 or 99%) of regulated units at its facilities by the end of FY 2010. One PC unit requires final permit determinations.

*The State meets the standards for this criterion.*

4. ***Quality of Permits or other controls for Post-Closure and Operating Units and Facilities (PSOP Criterion 3.4)***

*The State meets the standards for this criterion.*

**CORRECTIVE ACTION**

1. ***Completion of RCRA Facility Assessments (PSOP Criterion 4.1)***

According to data in RCRAInfo, all 40 Utah TSDFs subject to corrective action have been assessed through a RCRA Facility Assessment (RFA, CA050) or equivalent, and most have been given a Corrective Action rank (high, medium, low). After the assessment, 24 TSDFs were identified as needing corrective action beyond the assessment stage. Of the 24 facilities needing corrective action, 11 were ranked “high” for their potential or actual releases of hazardous contamination. In 1997, these 11 facilities were established as the Utah Corrective Action Baseline Universe. Stabilization evaluations (CA225) have been completed for the 11 high-ranked facilities.

*The State meets the standards for this criterion.*

2. ***Quality of RCRA Facility Assessments (PSOP Criterion 4.2)***

Not applicable since the state previously met the standards for this criterion, and no additional work is anticipated.

*This criterion is not applicable.*

3. ***Completion of Investigations (PSOP Criterion 4.3)***

The PPA target at the area level was one RFI Approval (CA200). The Division met the target by completing 33, as listed in Table 8 below.

*The State meets the standards for this criterion.*

4. ***Quality of Investigations (PSOP Criterion 4.4)***

*This criterion is not applicable.*

5. ***Completion of Cleanup (PSOP Criterion 4.5)***

The FY 2010 PPA had the following targets in this area: one Facility Remedy Selection (CA400); one Facility Construction Completion (CA550); one Human Health Exposure Controlled Determination (CA750); one RFI Approved (CA200); five Construction Completion (CA550); and two Corrective Action Complete (CA999). The facility that was to complete the facility wide CA400 and CA550 was Ninigret/Engelhard. However, some changes in the management of SWMU 1 delayed the completion of corrective action. The Division completed one CA725 and CA750 for Ashland Chemical, one CA100, 33 CA200, 38 CA440, 40 CA550 and 43 CA999.

The following table summarizes the corrective action activities in FY 2010:

**Table 6 – FY 2010 Corrective Action Activities in Utah**

| <b>Facility</b>                        | <b>Activity</b>                                                       | <b>Date</b>      |
|----------------------------------------|-----------------------------------------------------------------------|------------------|
| Anderson Development, INC.      Geneva | Construction Complete (CA550RC) 4 SWMUs                               | 6/23/2010        |
|                                        | Construction Complete (CA550RC) 1 SWMU                                | 3/8/2010         |
|                                        | Construction Complete (CA550RC) 1 SWMUs                               | 12/23/2009       |
|                                        | Construction Complete (CA550rc) 1 SWMUs                               | 9/22/2010        |
|                                        | Construction Complete (CA550RC) 1 SWMUs                               | 9/21/2010        |
|                                        | CA Complete (CA999) 4 SWMUs                                           | 6/23/2010        |
|                                        | CA Complete (CA999) 1 SWMU                                            | 3/8/2010         |
|                                        | CA Complete (CA999) 1 SWMUs                                           | 12/23/2009       |
|                                        | CA Complete (CA999) 1 SWMUs                                           | 9/22/2010        |
|                                        | CA Complete (CA999) 1 SWMUs                                           | 9/21/2010        |
|                                        | Stabilization Construction Complete CA650 2.19-BF-38D                 | 12/23/09         |
| Dugway Proving Ground                  | Stabilization Measures Implemented (CA600)                            | 11/02/0911/02/09 |
|                                        | Stablization Measures Completed (CA650)                               |                  |
| Dyno Nobel Site B                      | RFI Approved (CA200) SWMUs 1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12, and 15 | 10/15/09         |
|                                        | Construction Complete (CA550) SWMU 5, 10, and 11                      | 10/15/09         |



| Facility                | Activity                                                                                                          | Date                |
|-------------------------|-------------------------------------------------------------------------------------------------------------------|---------------------|
|                         | CA Complete (CA999NF) SWMUs 5, 10, and 11                                                                         | 10/15/09            |
| Ensign-Bickford Company | CMI Construction Complete (CA550) SWMUs 1-3, 5-7, 10, 12, 15-19, 22, 24, 26-28, 30-31, 33, 35-36, 39, 41-42.      | 4/21/10             |
|                         | CA Complete (CA999RM) SWMUs 1-3, 5-7, 10, 12, 15-19, 22, 24, 26-28, 30-31, 33, 35-36, 39, 41-42.                  | 4/21/10             |
| Tooele Army Depot       | CMI Construction Completed (CA550) – SWMUs 1B, and 1C<br>CA Process Terminated (CA999) – SWMUs 1B,1C,20,21,and 34 | 06/28/10<br>6/28/10 |
| Ashland Chemical Co     | Human Health Exposure Controlled CA725, Groundwater Releases Controlled CA750                                     | 10/08/09            |

The Division also continued to conduct oversight of the following voluntary corrective action sites:

- Autoliv (former Volvo GM facility) – Oversight of groundwater monitoring.
- Rocky Mountain Power (UP&L) Jordan Substation – Approved a Site Management Plan and Environmental Covenant on July 27, 2010.
- Unysis Salt Lake City Facility – Approved a vapor intrusion work plan in September of 2010. In addition, reviewed Annual Status Report and provided comments on September 2, 2010.
- Varian Medical Systems – Provided comments in April 2010 for a vapor intrusion report. Reviewed Semi-annual Monitoring Report in September 2010.

Ongoing oversight of groundwater monitoring as required through approved site management plans was conducted at Northrup Grumman (Litton Defense Systems), Mosquito Abatement SLCC, Box Elder Mosquito Abatement, Aero Tech Manufacturing, Farmers Grain COOP, Univar SLC, Univar Woods Cross, Mark Miller Toyota, Tuxedo Junction and Brickyard Square Property.

Figure 7 illustrates progress in achieving the Corrective Action national goals for Construction Completion. The regional target for FY 2010 was 30%; Utah has achieved remedy selection at 11 of 24 facilities or 46%.

**Figure 7: Utah Progress on Construction Completion (CA550) at 11 High-Ranked Facilities**

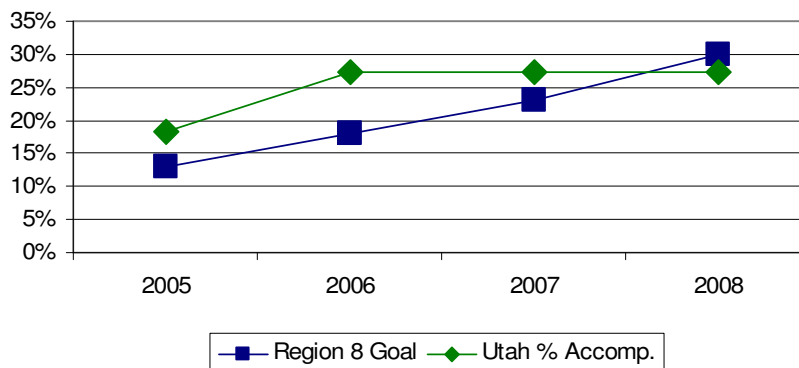


Figure 8 presents the status and progress of cleanup for the 846 areas at Utah's 24 GPRA facilities over the past several years. The agencies note that incremental progress toward cleanup goals is most clearly demonstrated when area level data are used. In Figure 9, the data indicate how many of the 846 areas at the 24 GPRA CA facilities there were in the workload universe, and many had at least reached each of the following three primary phases of cleanup by the beginning of FY 2010:

Figure 8 presents the status and progress of cleanup for the 846 areas at Utah's 24 GPRA facilities over the past several years. The agencies note that incremental progress toward cleanup goals is most clearly demonstrated when area level data are used. In Figure 9, the data indicate how many of the 846 areas at the 24 GPRA CA facilities there were in the workload universe, and how many had at least reached each of the following three primary phases of cleanup by the beginning of FY 2010:

1. The Investigation Phase (includes all investigation events, such as RFI imposition, RFI completion, Risk Assessment, etc.);
2. The Remediation Phase (includes all cleanup events, such as Remedy Selection, CMI Construction Completion, Stabilization Measures Imposed, etc.); and
3. The Completion of CA, Termination (all cleanup goals achieved).

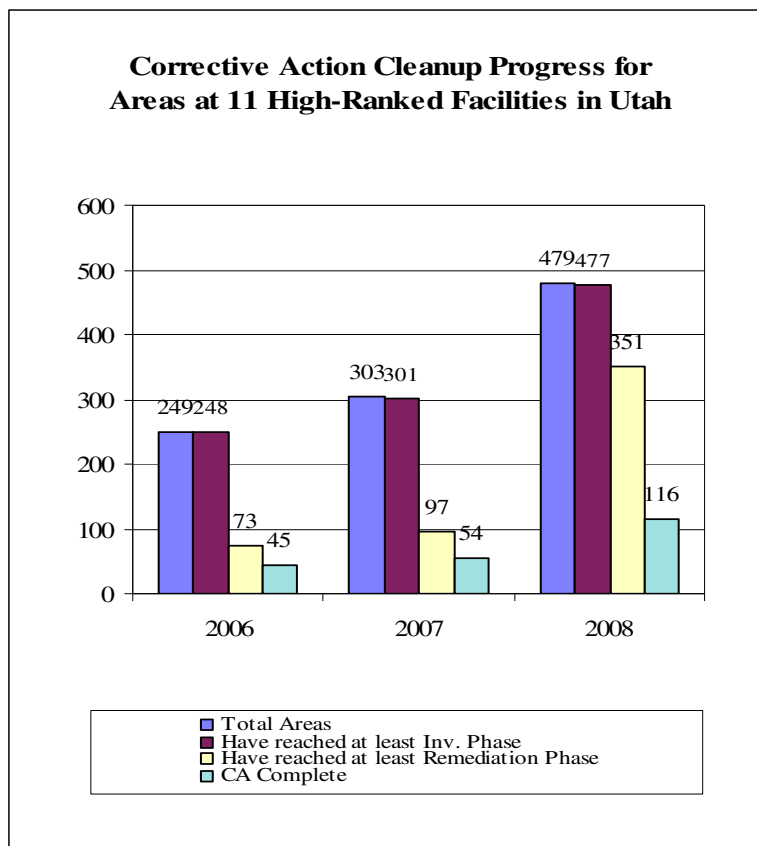
The data in Figure 8 indicates a significant growth (from 496 in 2008 to 846 in 2010) in the number of areas that have been designated at the 24 GPRA facilities. This is due primarily to the breaking out of individual areas that are proceeding through CA at different rates. The Division expects that further breakouts of CA areas will occur in the future.

The data in Figure 8 also indicate that:

1. Almost all of the areas have reached at least the investigation phase;

2. There has been significant progress in the number of areas that have reached the remediation phase (397 in 2008 to 500 in 2010, and
3. The number of areas that have completed the CA process has increased (from 153 in 2008 to 351 in 2010).

**Figure 8**



*The State meets the standards for this criterion.*

**6. *Quality of Cleanup and Remediation Activities (PSOP Criterion 4.6)***

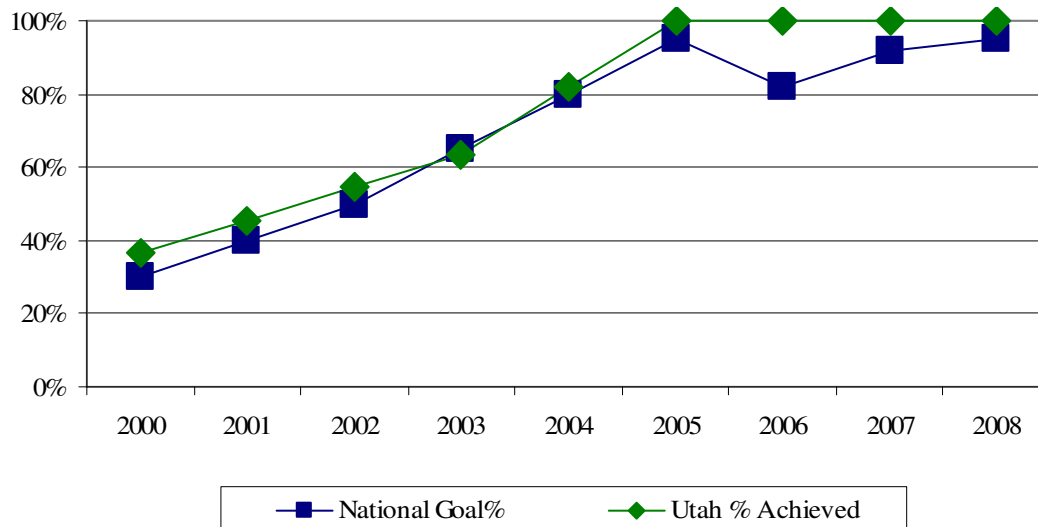
*The State meets the standards for this criterion.*

**7. *Progress in Achieving Environmental Indicators (PSOP Criterion 4.7)***

Having current Human Risks and Migration of Contaminated Ground Water under control at GPRA CA facilities is a high priority of the national RCRA program. The Division supports this priority by focusing efforts on the 24 GPRA facilities in Utah and tracking progress toward the national goals for the two measures. Utah completed both the Human Risks and Migration of Contaminated Ground Water under control at Ashland Chemical.

***Current Human Exposure Under Control (CA725):*** Utah has achieved this Environmental Indicator for 92% of its GPRA facilities.

**Figure 9- Utah Progress on Current Human Exposures  
Under Control at 11 High-Ranked Facilities**



***Migration of Contaminated Ground Water Under Control (CA750):*** During FY 2010, the Division continued to work to complete the EI's at ATK-Bacchus, Vertellus (formerly Reilly Industries), and Western Zirconium. The current completion percentage of 71% (17 of 24 GPRA corrective action baseline facilities) recognizes the inclusion of Ashland Chemical.

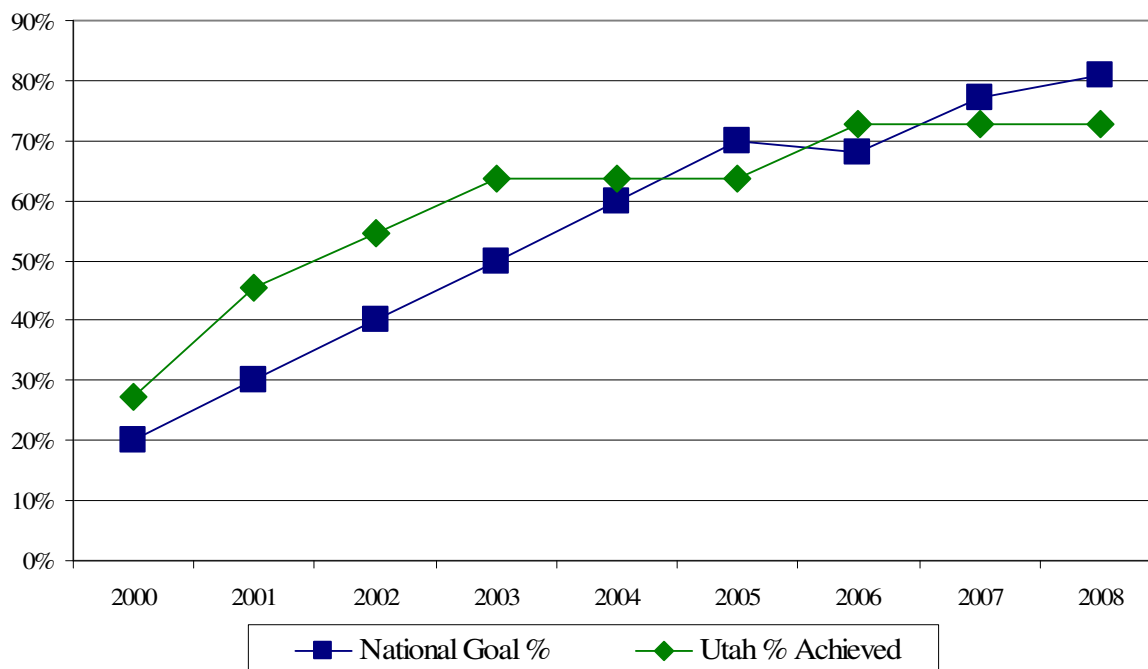
ATK-Bacchus has eliminated the original sources of contamination, continues to monitor the groundwater contamination plume, and has an operational remediation pilot plant. The facility is now struggling to find the right amendment to stimulate in-situ remediation of the perchlorate contamination.

Reilly (Vertellus) continues to delay taking action on any source area interim measures. The Division is evaluating its options for compelling Vertellus to conduct these activities.

During FY2009 Western Zirconium and the Division decided on a barrier wall design. The Army Corp of Engineers has expressed concerns over the positioning of the wall and its impact on a wetlands area. The Division and Western Zirconium are waiting for guidance from the Corp so that installation of the wall can proceed.

The effort to address the groundwater EI at all of these facilities is ongoing.

**Figure 10 - Utah Progress on Ground-Water Migration  
Under Control at 11 High-Ranked Facilities**



*The State meets the standards for this criterion.*

## **RCRA ENFORCEMENT PROGRAM SRF Review Year**

### **I. Inspections**

The following is the Division's self-assessment for compliance and enforcement.

- During FY10, the Region scheduled six oversight inspections.

Utah conducted 101 inspections during FY10. These inspections included TSDFs, LQGs, SQGs, CESQGs, Transporters, and Used Oil facilities. All inspection data has been entered into RCRAInfo.

- Utah inspection reports document inspection findings, including accurate identification of violations.
- Of the 35 large quantity generators inspections completed in 2010 there were 14 in EJ areas for a total of 40%. Of the 7 used oil inspection 5 were in EJ areas for a total of 71%.

### **II. Enforcement**

The Division took appropriate enforcement actions as follows.

- Enforcement actions are taken in a timely manner with few exceptions. There were 9 enforcement actions completed in FY10.
- Enforcement actions were appropriate for the violations, including proper and timely designation as a SNC, where appropriate.
- Enforcement actions included appropriate injunctive relief that returned facilities to compliance in a specific time frame.
- Gravity and economic benefit calculations were included for all penalties as appropriate. Utah negotiated \$20,697 in penalties in FY10.
- Final enforcement actions stipulated appropriate gravity and economic benefit portions of a penalty.

### **III. Annual Agreements**

Utah met all commitments in the PPA.

### **IV. Data Management**

No concerns have been identified.

### **V. Summary**

#### Program Strengths

- Inspections: Coverage for operating TSDFs and LQGs is above the national average. Utah generally accomplishes all planned inspections within time frames. Inspection reports accurately reflect findings and provide required detail.
- Formal Enforcement Actions: Enforcement actions, including penalty collection, occur within agreed upon time frames with few exceptions.
- Used Oil Program: The program is a national model for effective compliance monitoring, recycling activities, and enforcement actions against violators.

### **ATTACHMENTS**

Performance Standards and Measures Summary Table  
FY 2010 Commitments Sheet

## **SIGNATURES**

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Steve Burkett, Director  
Solid and Hazardous Waste Program  
U.S. Environmental Protection Agency – Region 8

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Date

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Scott T. Anderson, Director  
Division of Solid and Hazardous Waste  
Utah Department of Environmental Quality

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Date

# ATTACHMENTS

**PSOP Program Review Summary Table**

**FY 2010 Commitments Table**



| FY 2010 EOY Review Summary for the Utah Solid & Hazardous Waste Division |          |                                                                                         |
|--------------------------------------------------------------------------|----------|-----------------------------------------------------------------------------------------|
| Criterion                                                                | Std Met? | Comments                                                                                |
| <b>PROGRAM MANAGEMENT</b>                                                |          |                                                                                         |
| <b>1.1</b> <i>Adoption of federal rules by the state</i>                 | YES      |                                                                                         |
| <b>1.2</b> <i>Authorization</i>                                          | YES      |                                                                                         |
| <b>1.3</b> <i>Memorandum of Agreement</i>                                | YES      |                                                                                         |
| <b>1.4</b> <i>Resources and Skill Mix</i>                                | YES      |                                                                                         |
| <b>1.5</b> <i>State training program</i>                                 | YES      |                                                                                         |
| <b>1.6</b> <i>Data Timeliness, Accuracy and Completeness</i>             | YES      |                                                                                         |
| <b>1.7</b> <i>Records Management</i>                                     | YES      |                                                                                         |
| <b>HAZARDOUS WASTE MINIMIZATION</b>                                      |          |                                                                                         |
| <b>2.1</b> <i>Resource Conservation Challenge</i>                        | YES      |                                                                                         |
| <b>SAFE WASTE MANAGEMENT</b>                                             |          |                                                                                         |
| <b>3.1</b> <i>Progress toward Closure</i>                                | YES      | Utah completed 8 closure verifications .                                                |
| <b>3.2</b> <i>Quality of Closure Plans and Verifications</i>             | YES      | The closure of unit “I-10 CL8” at ATK Thiokol Promontory met all appropriate standards. |
| <b>3.3</b> <i>Progress toward Controls for PC/OP Facilities</i>          | YES      |                                                                                         |
| <b>3.4</b> <i>Quality of PC/OP instruments</i>                           | YES      | The renewed Ashland Distribution permit met all performance standards.                  |
| <b>CORRECTIVE ACTION</b>                                                 |          |                                                                                         |
| <b>4.1</b> <i>Completion of RFAs</i>                                     | YES      |                                                                                         |
| <b>4.2</b> <i>Quality of RFAs</i>                                        | N/A      |                                                                                         |
| <b>4.3</b> <i>Completion of Investigations</i>                           | YES      |                                                                                         |
| <b>4.4</b> <i>Quality of Investigations</i>                              | N/A      |                                                                                         |
| <b>4.5</b> <i>Completion of Cleanup</i>                                  | YES      |                                                                                         |
| <b>4.6</b> <i>Quality of Cleanup and Remediation</i>                     | YES      |                                                                                         |
| <b>4.7</b> <i>Progress in Achieving EIs</i>                              | YES      |                                                                                         |
|                                                                          |          |                                                                                         |

| FY 2010 Hazardous Waste Program Commitments for UTAH                                                                        |                          |                        |           |          |     |
|-----------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------|-----------|----------|-----|
| Event                                                                                                                       | # of Facilities or Units | Achieved by EOY FY2010 | FY 2010   |          |     |
|                                                                                                                             |                          |                        | Committed | Achieved | EOY |
| Closure Activities (all at unit level)                                                                                      |                          |                        |           |          |     |
| Closure Plan Approval (CL360) for LDUs                                                                                      | 55                       | 53                     |           | 0        | 53  |
| Closure Verification (CL380) for LDUs                                                                                       | 55                       | 52                     |           | 0        | 52  |
| Closure Plan Approval (CL360) for TSUs                                                                                      | 141                      | 132                    | 1         | 1        | 133 |
| Closure Verification (CL380) for TSUs                                                                                       | 141                      | 119                    | 3         | 4        | 123 |
| Closure Plan Approval (CL360) for CUs                                                                                       | 6                        | 5                      |           | 0        | 5   |
| Closure Verification (CL380) for CUs                                                                                        | 6                        | 3                      |           | 0        | 3   |
| Closure Plan Approvals Total (LDUs + TSUs + Cus)                                                                            | 202                      | 190                    | 1         | 0        | 191 |
| Closure Verifications Total (LDUs + TSUs + Cus)                                                                             | 202                      | 174                    | 3         | 4        | 178 |
| Permit Activities at GPRA Universe Facilities (all at facility level)                                                       |                          |                        |           |          |     |
| Permitted Facilities under Approved Controls (Manual counts at facility level)                                              | 27                       | 25                     | 1         | 1        | 26  |
| Permit Renewal due this FY (Manual counts at facility level)                                                                | 4                        | 1                      |           | 1        | 1   |
| Permit Activities Total                                                                                                     |                          |                        | 1         | 1        |     |
| Permit Activities for GPRA Universe Facilities (at unit level)                                                              |                          |                        |           |          |     |
| Controls in Place for LDUs on Closure Track                                                                                 | 40                       | 39                     |           | 0        | 39  |
| Controls in Place for LDUs on Operating Track                                                                               | 4                        | 4                      |           | 0        | 4   |
| Controls in Place for TSUs on Operating Track                                                                               | 139                      | 137                    | 2         | 2        | 139 |
| Controls in Place for CUs on Operating Track                                                                                | 6                        | 6                      |           | 0        | 6   |
| Corrective Action Activities at GPRA Universe Facilities (activities are at facility level, unless specified at area level) |                          |                        |           |          |     |
| RCRA Facility Assessments (CA050)                                                                                           | 24                       | 23                     |           | 0        | 22  |
| Overall Facility NCAPS Ranking (CA075)                                                                                      | 24                       | 23                     |           | 0        | 23  |
| Facility Stabilization Assessment (CA225)                                                                                   | 24                       | 23                     |           | 0        | 23  |
| Facility Remedy Selection (CA400) (GPRA measure)                                                                            | 24                       | 12                     | 1         | 0        | 12  |
| Facility Construction Completion (CA550) (GPRA measure)                                                                     | 24                       | 11                     | 1         | 0        | 11  |
| Human Health Exposures Controlled Determination (CA725) (GPRA measure)                                                      | 24                       | 21                     | 1         | 1        | 22  |
| Groundwater Migration Controlled Determination (CA750) (GPRA measure)                                                       | 24                       | 16                     | 1         | 1        | 17  |
| RFI Imposed (CA100) (area level)                                                                                            | 846                      | 777                    |           | 1        | 778 |
| RFI Approved (CA200) (area level)                                                                                           | 846                      | 587                    | 1         | 33       | 620 |
| Remedy Selection (CA400) (area level)                                                                                       | 846                      | 462                    |           | 38       | 500 |
| Construction Completion (CA550) (area level)                                                                                | 846                      | 324                    | 5         | 40       | 364 |
| Corrective Action Completed (CA999 area level)                                                                              | 846                      | 308                    | 2         | 43       | 351 |